

ROUNDUP



NASA LYNDON B. JOHNSON SPACE CENTER

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Group Nets Largest Award Ever At JSC

Twelve JSC employees recently received \$12,750 in contribution awards from the NASA Inventions and Contributions Board (ICB).

An award of \$10,000 went to the team that developed and implemented the Skylab parasol concept, representing the third largest award ever made by NASA, and the largest monetary award ever made to a group of JSC employees. Receiving \$4,500 of the total amount was Jack A. Kinzler, Chief of the Technical Services Division who conceived the parasol idea. The award to Kinzler was the largest ever presented to an individual employee at JSC.

The concept was initiated following the launch of Skylab I in May 1973 when an aluminum

shield designed to protect the orbital workshop (OWS) from micrometeoroid penetration and thermal overheating was lost. A major effort was immediately organized at JSC to develop a means of controlling the temperature in the OWS to a habitable level.

The parasol design was selected as the primary shielding device and proved to be a highly effective method for controlling temperatures in Skylab.

Along with the presentation to Kinzler, Donald Arabian, Director, Program Operations Office received \$2,500 for leading the team responsible for developing, producing, testing and delivering the parasol system.

Awards of \$1000 each were pre-

sented to James V. Correale, Chief, Crew Systems Division, Jack A. Jones, Chief, Quality Assurance Division and James D. Williams, Acting Chief for Engineering, Engineering Division.

Correale led the design, development and manufacture of the soft goods required for the parasol and headed the critical packaging effort, Jones organized and managed a quality assurance team to support the development of the parasol; and Williams directed the detailed design of parts for the parasol system and led his organization's design activities on an around-the-clock basis, assuring that all technical requirements of the Skylab parasol team were met.

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CONTRIBUTION AWARDS — Twelve JSC employees recently received \$12,750 in contribution awards from the NASA Inventions and Contributions Board (ICB). Recipients include (l-r seated) Jack A. Jones, Jack A. Kinzler (\$4,500), James D. Williams, James V. Correale; (seated at table, rear l-r) John W. Kiker, William K. Creasy, Gary W. Johnson, Dr. Maxime A. Faget, Caldwell C. Johnson, Jr., (retired) William W. Petynia, Donald D. Arabian, Charles C. Lutz. In the last row are Ronald Engel and Dr. Christopher C. Kraft who presented the awards.

Dr. Whittle Completes Tour of Duty

Squadron Leader Michael W. Whittle, a medical officer with the Royal Air Force, recently completed a two and one-half year tour of duty with JSC. He was one of two foreign aerospace doctors who worked with U.S. scientists on Skylab.

Assigned to the food and nutrition area, Dr. Whittle's primary responsibility was gathering and analyzing data on the M071 mineral balance experiment. This experiment involved calculating the astronauts' intake of all the different nutrients in flight and relaying instructions to them if they needed to "smooth out" any dietary irregu-

larities resulting from changes in menus.

"I especially enjoyed working in this particular area," Dr. Whittle said. "It is fascinating that medical

experiments of this magnitude can be performed under such unusual circumstances, with the subjects whizzing around the earth at high speeds and having no direct contact with the experimenters."

All of the M070 series of medical experiments were aimed at assessing the effect of spaceflight on the musculo-skeletal and endocrine systems. Dr. Whittle says the scientists gathered massive data and will soon be able to make some final conclusions on what happens to man's body composition in space.

Dr. Whittle joined the RAF in October 1970 as a junior medical officer and rose to squadron leader

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Dr. Michael Whittle

Orbiter Wings En Route To Palmdale

The Space Shuttle Orbiter wings which one day will travel at more than 17,500 miles per hour in Earth orbit, last week began the first leg by truck of an 18-day journey at the tortoise-like speed of 10 miles an hour from Grumman Aerospace Corporation in Bethpage, N.Y. to a

waiting barge in Long Island Sound.

The wings, the largest ever built by Grumman, are scheduled to travel by ship down the east coast across the Caribbean Sea, through the Panama Canal and then up the Pacific Coast to Long Beach, California and overland to Palmdale,

the site for Orbiter's final assembly.

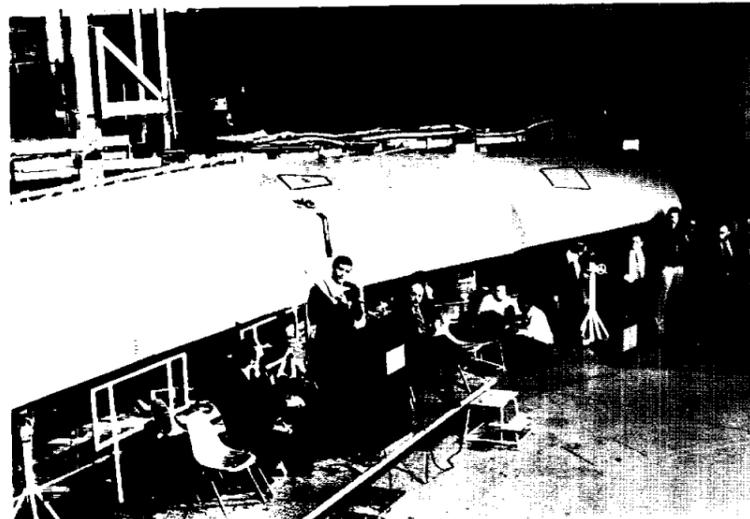
The wings will be first flown on the orbiter for the approach and landing tests from the NASA Flight Research Center, California in 1977. After these tests, the wings will be re-furbished for Earth orbital flight.

The two-wing panels, each measuring 30 feet from tip to fuselage and 60 feet in width where they join the fuselage, departed Grumman's Bethpage, Long Island facility and traveled nine miles overland to Oyster Bay, aboard two large, specially-designed transporters. The transporters have their own braking and lighting systems, and each will be pulled by a truck at a maximum speed of 10 miles per hour.

The initial leg of the journey took two hours. At Oyster Bay, the wing panels, totaling approximately 1,500 square feet of surface and 12,000 pounds in weight and wrapped in a moisture-proof soft cover, will be loaded by crane, along with the transporters, onto a waiting barge.

A tugboat will pull the barge,

(Continued on page 4)



FASTEST AND LARGEST — The first set of Orbiter wings left Grumman Aerospace Corp., Bethpage, N.Y. last week on a land and water journey which will end at the Palmdale, California assembly plant. Fred W. Haise, technical assistant to the Orbiter Project Office, briefed news media representatives and some 300 Grumman employees on Shuttle operations. The 60 foot wide wing is shown directly behind Haise as he holds a model of the Shuttle.

ASTP Countdown...

Most of the ASTP prime and backup crewmen and other NASA officials have returned from the Soviet Union where the crews were undergoing joint training. Brig. Gen. Thomas P. Stafford and Capt. Alan L. Bean will return next week.

Joint simulations are scheduled to start next week. On Tuesday, May 13 at 6:20 a.m. (Soyuz launch minus one hour) a 25-hour simulation will begin.

A 56-hour simulation will begin on Thursday May 15 at 6:30 a.m. (from 47 hours ground lapse time to 103 hours ground lapse time). Included in this simulation will be rendezvous, docking, crew activities, undocking and separation.

A press conference with the U.S. ASTP prime crew will be held on May 14.

On May 19 an 8-hour rendezvous simulation will take place.



TROPHY — President Gerald R. Ford recently presented the Robert H. Goddard Memorial Trophy to Astronaut Gerald Carr, Commander of the third Skylab mission. The presentation took place at the White House. The trophy, a bust of Dr. Goddard, Father of American Rocketry, is awarded annually by the National Space Club.

Throughout NASA

TELESAT-3

The third in a series of Canadian domestic communications satellites, Telesat-C, this week was launched by NASA from Cape Canaveral, Fla. aboard a Delta rocket. Renamed ANIK-3 in orbit, the satellite was placed in synchronous orbit over the equator at 119 degrees West Longitude where it will receive television and telephone transmission to ground stations in Canada. Each Telesat is able to accommodate 10 color television channels or up to 9,600 telephone circuits.

X-RAY

The fast-developing science of high-energy astrophysics recently was provided with an important new instrument for studying major

energy transfer mechanisms in the universe. The instrument is NASA's Small Astronomy Satellite-C, renamed Explorer 52 in orbit. It was launched this week from the Italian-operated San Marco Equatorial Range off the coast of Kenya in East Africa, and can support a variety of scientific instruments for space exploration.

TESTS

The NASA Flight Research Center, Edwards, CA, has begun flight tests to measure the noise levels of five business class jet aircraft during various types of landing approach maneuvers. The objective of this cooperative industry-government

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FEDERAL WOMEN'S PROGRAM COMMITTEE — A Federal Women's Program Committee has been established at JSC to assist the Federal Women's Program Coordinator and the EEO Officer concerning problem areas which affect women. The committee is sponsoring a Federal Women's Day Program on May 15. Pictured in are Sharon Henderson, Josephine Jue, Marilyn Bockting, Estella Gillette, Mary Kerr, Chairperson, Billie Schmidt, Phonicille DeVore, Audrey Lemons, and Aneta Davis.

JSC Career Profile: Marilyn Bockting

When Marilyn Bockting went to work as a clerk-typist at the age of 17, she "never dreamed" her future would hold the kind of opportunities she has encountered.

"I have been fortunate in my career to work for supervisors who have encouraged me to do any job I felt I could handle," she remarked.

Marilyn held several secretarial positions in both government and industry before transferring to JSC in 1963 with then Deputy Director, James Elms.

"My major ambition then was to be an excellent secretary and I enjoyed my work tremendously," she remarked. However, in 1967 when Elms' successor, Dr. George M. Low became manager of the Apollo Spacecraft Program, Marilyn, as his secretary, had to devote

a great deal of time to administrative duties. She managed an office at the North American plant at Downey, California when the Program Manager had to move there for a short time, and accompanied him to Kennedy Space Center prior to each Apollo launch to assist him with both secretarial and administrative work.

"I found my administrative assignments both interesting and challenging," she commented, "and as my interest increased, so did my responsibilities."

Early in 1970, Marilyn became Administrative Assistant to the Director of Flight Crew Operations and in August 1973 was appointed to her current position — Assistant to the Manager of the Program Administrative Office.

Marilyn has assisted in planning and conducting several courses at JSC and recently was appointed to the Center's Federal Women's Program Committee. She is concerned that employees in the lower-grade positions be made aware of the opportunities for advancement.

"I believe there are many employees at the Center who have the ability to take on more demanding tasks," she commented, "Through the upward Mobility Program, there are now opportunities for them to

enter new career fields and everyone will benefit through giving them the chance to work in areas that will take advantage of their talents."



Marilyn Bockting

Marilyn is secretary to the JSC Exchange Council and served as chairperson of the Scholarship Committee for three years. She helped initiate the Clear Lake Area Chapter of the American Business Women's Association in 1963 and served as its president from December 1973 through October 1974.

FWD Program Committee Will Sponsor "Space For Women"

"Space For Women" will be the theme of JSC's Federal Women's Day Program to be presented May 15. Sponsored by the Center's Federal Women's Program Committee, the event is part of the 1975 International Women's Year and Federal Women's Program Week activities.

Federal Women's Day has been designated primarily to focus attention on the role of women in federal government as well as to help make women aware of the challenges and problems they face in the work environment.

The program will begin with a session at 9:00 a.m. in the Building 2 Auditorium, and a similar session will be held at 1:00 p.m. All employees are encouraged to attend one of the sessions.

Speakers will include Dr. Harriett Jenkins, Assistant Administrator for Equal Opportunity Programs, NASA Headquarters; Ms. Renee L. Hall, Secretary, Ellington

Air Force Base; Dr. Dale Hill, Assistant Professor, University of Houston and Clinical Psychologist; and Dr. Bette Stead, Associate Professor, University of Houston.

Dr. Christopher C. Kraft, Center Director also will participate.

New Developments To Be Presented

Recent developments in techniques and technology for rural emergency medical care will be discussed at a three-day conference May 15, 16 and 17, 1975, at Texas Tech University in Lubbock.

Presented by the Texas Tech University School of Medicine and College of Engineering under sponsorship of JSC, the International Conference on Remote Emergency Medical Services will bring together experts in the field for an exchange of information. The final day, May 17, will be a Workshop in the Problems of Emergency Medical Care in West Texas.

Conference sessions will cover the characterization of an emergency medical system, communications and equipment, transportation, and treatment and training.

JSC speakers at the Conference are Director of Life Sciences Richard S. Johnston who will deliver welcoming remarks; Richard L. Sinderon, Jr. will give a paper entitled "Permian Basin Communications Network;" Norman Belasco will give a paper, "STARPAHC: A Progress Report" (STARPAHC: Space Technology Applied to Rural Papago Advanced Health Care — a NASA-developed health care system on the 4300-square-mile Papago Indian reservation in southwestern Arizona). Richard B. Marston of NASA Headquarters will give a paper entitled "Satellite Aided Biomedical Telecommunications."

The Conference and Workshop have been approved for 17 hours of continuing medical education credit by the American College of Emergency Physicians.

Inquiries regarding the Conference should be directed to Dr. William M. Portnoy, P.O. Box 4267, Tech Station, Lubbock, TX 79409.

Clinic Conducts Cholesterol Tests

The Lipid Research Clinic at Baylor College of Medicine this month is conducting a cholesterol screening at JSC for Center and contractor employees. Men between the ages of 35 and 59 who have no previous history of heart disease or high blood pressure are eligible to take part.

Statistics show that heart attacks claim more than 600,000 victims each year — primarily men in their 40's and 50's. Scientific research indicates that men with high levels of blood cholesterol have a greater risk of developing heart disease than men with normal levels.

Baylor and the Methodist Hospital are working with eleven other Lipid Research Clinics to determine whether lowering high blood cholesterol will reduce the risk of heart attack.

The test initially involves having a blood sample tested for cholesterol. All men tested will receive their results. Those whose levels are elevated may qualify for participation in the ongoing program.

For more details, contact Dr. Paul Wright, X4111.

Gilruth Center Offers First Aid

A first aid course is being offered at the Gilruth Recreation Center by the American Red Cross. The class will start May 20. Deadline for signing up is May 16. Take advantage of this opportunity to prepare for any first aid emergency. Call 3594 for more information.

Two Scholarship Winners Chosen

Patsy Palos and Rosemary Norman have been selected as recipients of the 1975 NASA Exchange-JSC scholarships bringing the total number of students studying under the program to eleven.

Scholarships are awarded on the basis of scholastic achievement, financial need and school and community involvement.

Patsy, daughter of Eva R. Palos of the Engineering Analysis Division, graduated from South Houston High School in 1974 and currently is a freshman at Dominican College. She is studying Elementary Bilingual Education. During her high school years, Patsy was

a member of the Senior Tri-Hi-Y, the Spanish Club, Future Teachers of America and the yearbook staff. She also served as a volunteer tutor at the Neighborhood Center.

Rosemary is the daughter of Murray D. Norman of the Machine and Assembly Branch. She will graduate this month from Deer Park High School and plans to pursue a career in Business Administration. Rosemary is a member of the National Honor Society and Mu Alpha Theta. She is also active in the Science Club, Medical Careers Club, swim team, track team and water polo team. In addition, she participates in many church activities.



SCHOLARSHIP WINNERS — Patsy Palos and Rosemary Norman have been selected as recipients of the 1975 NASA Exchange-JSC scholarships. Pictured with Dr. Christopher C. Kraft, Center Director, are left, Murray Norman of the Machine and Assembly Branch and daughter Rosemary, and Patsy and her mother, Eva R. Palos, Engineering Analysis.

Roundup Swap-Shop

Swap Shop advertising is available to JSC and on-site contractor personnel. Articles or services must be offered as advertised, without regard to race, religion, sex or national origin. Ads should be 20 words or less, including home telephone number. Name and office code must accompany, but need not be included in ad copy. Typed or printed copy must be received (AP3 Attn: Roundup) by Thursday of the week before publication.

MISCELLANEOUS

Playpen, baby items Sear's power mower, tv antenna, all wood dinette, Honda 70, parakeet and cage, all xint cndn, 488-0192.

7 hp riding mower, \$50, 3 1/2 h.p. outboard motor, needs minor repair, \$40, bucket boat seats, blue and white, pr \$30, 3 p.c. samsonite lug set, lt blu, \$20.

Offshore fishing or diving, all equipment furnished for fishing, \$100/day, 1-6 people, for reservations call 471-2263 or 474-2260.

Women's golf clubs, starter set, right handed, bag not necessary, Mayhew, 333-3291 or 4286.

Antiques, Winsor rocker, \$50, OG clock, (not running) \$60, umbrella stand \$30, 488-1890.

Golf clubs, cmplt set irons, pitching wedge thru 2 iron, gd cndn, McGregor tourneys, \$50, 946-3825.

Riding Mower, "Huffy" model 5 hp, B/S eng, 24" cutting blade, tractor type seat, less than 2 hrs. usage, normal retail, \$295, will sell for \$225, 333-4684.

Outboard gas tank, 6 gal, OMC type used, \$8, Ward, 2386.

Mod 1856 .44 cal Navy Colt cap and ball single action slx shooter, replica, brass frame, blue steel barrel and cylinder, rose wood grips, nvr fired, \$65, Ullrich, 487-0307 or 3325.

Motometer compression tester w/ permanent recording gage, xint cndn, \$15, Bauch, 333-3382.

Trailer hitch class II, fits many, 1962-1971 model cars, \$10, Hessmyer, 3511 or 488-5610.

Minox B. Camera, built-in exposure meter, flash attachment, \$75, 482-7837.

Little League Special, pitch-back practice frame, \$10, 334-1869.

Two chrome whs, \$10 ea, 14" x 7", fits 65-75 Dodge Dart, Demon, Swinger, Plymouth Valiant, Duster, Scamp, and 65-69 Barracuda, 4673 or 488-5192.

Awards

(Continued from page 1)

Also, six Center employees received awards ranging from \$250 to \$500 for their participation in the development of the alternate Skylab thermal shielding device, the Stand Up Extravehicular Activity (SEVA) sail. They are William K. Creasy, Maxime A. Faget, Caldwell C. Johnson, Jr., (retired), John W. Kiker, Charles C. Lutz, and William W. Petynia.

A final award of \$1000 was presented to Gray W. Johnson, Chief, Equipment and Installation Section, Control Systems Development Division, for his development of an emergency docking probe retract mechanism and procedure which was used during Skylab.

Presenting the awards were JSC Director Christopher C. Kraft and Ronald Engel, Chief, Awards Branch, ICB.

VEHICLES

72 Honda CB 350, xint cndn, \$550 or bst ofr, Patin, 481-6548 or 5121.

Tec travel trailer, self contained, 71 sleeps 5, Butane, stove/oven, wall hter, ice bx, xint cndn, \$1600, Munford, 3254.

64 VW Bug, 48,300 orig, 75 plates, nov insp sticker, \$395 or bst ofr, Corcoran, x5107.

69 Ford, E-300, club wgn, 5 pass, fact, a/c, auto, 1 owner, \$1500, Tanner, 482-1328.

69 Impala cust cpe, clean, auto/air, pwr b/s, vinyl top, gd tires, \$1100, 474-3401.

Honda 125, street and trail bike, Smith, 488-3238.

71 Ford Econoline van, gd cndn, great for camper, also 60 VW eng & frame for dune buggy or parts, \$100, 5451 or 474-4098.

Aero Commander 112A, new (ferry miles only), King radio, King ADF, auto pilot, delux interior, fully loaded, \$32000, Gorman, 521-9805.

69 Mercedes 230, auto, air, am/fm tape, nw tires, xtra clean \$3500, 926-8588.

75 Dodge Coronet, 4-dr, 8 cyl, power disc brakes, auto trans, air, radio, pwr steering, Ellis, 686-1923.

Rent, Cherokee 235 IFR Trainer, 2 Nav-Comms, DME, ADF, marker beacon, autopilot/Nav-tracker, \$38/hr wet, CFII available, 334-1869 aft 6.

66 Chrysler 9 pass wgn, dual air, \$350, 474-2906 aft 6.

74 Yamaha TX 500, nw cndn, 4000 mi, 2 cyl-4 cyl turn signals, elec start, \$1150, White, 4405 or 644-3585.

PROPERTY AND RENTALS

Wooded or open tracts for sale near Wharton, \$10/ac down, 10-yr terms, \$2800/ac open, \$3200/ac wooded, 482-7774 aft 6.

CLC, 4-2-2, 1850 sq ft, fenced, nice trees, \$45,000, 488-3286.

Lake Livingston resort/retirement home, 3-2-1, attractively furnished, Cape Royale area, weekly, monthly and yearly rental rates, 488-4487.

Beach House, Galveston/Spanish Grant, ocean front, sleeps 8, fully furnished, all conveniences, seasonal rates by owner, 333-3951 (rental).

PETS

AKC male beagle, 4 1/2 yrs, xint tri-color markings, gd hunting mouth, would be vry gd for stud, free to someone with adequate room (no city lots), Laughon, 333-4036 or 3274.

AKC long-coat Chihuahua, prfct apartment pets, gd bloodline, 9 weeks old, shots, 4282 or 488-3766 aft 5, Sullivan.

Kittens need good home (4) by May 23 or 30, Bursdal, 3036 or 482-2873.

AKC Basset Hounds, Male, 5 yrs, \$50, female (champion line) 4 years, \$75, 5296 or 488-6871 aft 5.

BOATS

18 ft Geary 18 sailboat w/trailer, all racing gear, gd cndn, nds painting, \$750, 5451 or 474-4098.

74 nineteen-foot Invader tri-hull gold flect top, carpet, vinyl seats, walk-thru, windshield, 85 Merc o/b, trailer, used less than 30 hours, xint cndn, \$3,975, replacement cost \$4,895, 483-3931 or 485-5209.

Sailboat, GC20 w/ trailer, motor, etc, make ofr, Breiby, 488-3196 or 3887.

22 ft Century built inboard, 210 hp, open cockpit but can sleep two under foredeck, \$1100, 474-2906 aft 6.

WANTED

Honda or Yamaha 100 cc or 90 cc to use on trails, Doherty, 488-0182.

Want to rent motor home or travel trailer for 2 weeks, July 5-19 for trip to Florida to see launch, McCollum, X2031 or 333-4696.

Want to rent car top lug carrier, must be 3 feet wide and 4 feet long, zip canvas cover, June 28-July 13 1975.

Potential/present property owners in Waterwood to reduce your interest payment, Boon, 5336 or 488-6380.

Two non-smokers to join carpool effective June 1, 8-4:30, meet at Howard and Gulf freeway vicinity, Bishop, 5554.

Someone in Galleria area to carpool to JSC will work out details, Kraft, 6408 or 629-0687.

Weekend retreat property with or without living quarters; wooded, fresh water fishing, within 1-1 1/2 hours drive from Houston, L. Germany, 643-4456.

HOUSEHOLD ARTICLES

Mahogany dining room set: china cabinet, table, 6 chairs, 2 leaves, buffet, 25 yr old set, extremely gd cndn, 488-5117.

4-drawer chest, Early American Style, maple finish, \$35, maple tea cart w/drop leaves and drawer, \$30, 334-1869 aft 6.

MORE SWAP-SHOP

Child's bike, adapts for boy or girl, training whs, li nw, \$20, Bike seat for child (baby carrier) \$5, Norris, 334-1777.

Moving must sell Honda CB 70, can be licensed for street, xint cndn, also color tv antenna, lead in for both UHF and VHF, prfct reception this area, 488-0192.

Want good quiet home for beautiful female cat, loving and gentle, \$15 as cat has been spayed, 488-0192.

Want small backpack w/ frame, other hiking equipment, Norris, 334-1777.

Mag wheels (4), 14X6.75, E.T. Unilug w/lugs and blocks, adaptable to any car, \$60, 337-1864 aft 5.

69 Pontiac Exec, sta wgn, full pwr, a/c, a/t, radials, rear o/L air bags, gd cndn, \$900, Erickson, 649-0396.

100 lb drum HTH \$64, case of acid, \$3.50, 479-5152.

67 Cadillac, all power, real clean, 944-3342 aft 5.

Wooded lot in Wildwood resort city (East Tx.) vry private w/ complete recreational facilities, 944-3342 aft 5.

Tennis Anyone?

Beginner, intermediate and advanced tennis lessons will start at the JSC courts June 2. The lessons will consist of one hour sessions twice per week for four weeks, morning and evening hours are available. A playground is located next to the courts to accommodate parents. The price of the lessons is \$30. Deadline for signing up is May 23. Call 3594 for more information.



THANKS TO YOU - The week of April 21-25 was set aside as "Thank You Week" by the United Fund of Harris County. Above little Edward Delgadillo of the Salvation Army Boys' Club presents a "Thank You" certificate to George Abbey in appreciation to the Center for its generous support.

EAA Attractions

BLOOD BANK

JSC and a number of offsite contractors including Philco-Ford, Rockwell International, General Electric and Lockheed have agreed to consolidate their blood banks into a single operation. An agreement has been signed with St. Lukes Hospital and a blood drive schedule has been implemented so that there is at least one drive every month. Employees may donate at any drive regardless of where they are employed. The next drive will be at JSC's Building 207 May 28. Contact Les Wynn, 3429 or Helon Crawford, 3809 for information about the May drive and for further schedule information.

DANCE CLASSES

There will be a beginner's dance class starting May 14 in Room 206 at the Gilruth Recreation Center. The course includes 10 lessons of ballroom dancing each Wednesday night from 6:45 to 8:15. The cost is \$35 per couple. Two intermediate classes and one advanced class will continue each Wednesday from 8:15 to 9:45. Bob and Rae Calvert are the instructors for these courses. Interested persons should contact Edi Quinn, 3431 or Charles Krpec, 5551.

SLOWPITCH

The NASA Blazers, sponsored by JJ's Sandwich Shop and the Ramada Inn, claimed first place in the Women's Division Tomball Slow-Pitch Softball Tournament held recently. Second place winners were the Pasadena Blazers.

The NASA team includes Reita Smith, team manager, Rennie Waund, head Coach, Don Smith, coach, Bob Ware, coach, Terry Gates, coach, Marcia Mangiaracina, Kathy Tamer, Ann Codianne, Judy Ware, Linda O'Brien, Linda Pierson, Mary Kubena, Sandie Campbell, Carolyn Waund, Barbara Wills, Julia Hebbe, Mary Treat, Lynn Thebeau and Noni Beaulieu.

ARTS AND CRAFTS

The Arts and Crafts Club meets on Mondays, 5:00 p.m., Room 209, Gilruth Recreation Center. Plan to get involved. Some of the projects have been rice paper covered Easter eggs, shape and drape dolls, tole pictures, and beautiful cloth flowers.

BASKETBALL

The Association Basketball team captured its seventh Competitive League title in the last 8 years by edging the defending champs, Blue Devils 53-52 in double overtime. Both teams came into the playoff game with 13-1 marks having split their regular season matchups.

Guard Bob Merriam sank a 15-ft jump shot with only two seconds remaining to pull the Association through a rough game. Phil Shannahan was the game's top scorer with 18 points.

BRIDGE CLUB

The JSC Bridge Club Spring Championship was won by John Bowen and Bob Fletcher. They are the first to have their names entered on the new bridge club plaque which will be on permanent display at the Gilruth Center. The Bridge Club holds weekly games at the Gilruth Recreation Center at 7:30 p.m. each Thursday. For information about the club activities, call Dave O'Brien, X3164.

KARATE CLUB

The JSC Karate Club is offering a summer program for youths, ages 10-17. The program will begin in June and end in August. It will provide basic karate techniques and self defense skills that will enable the student to improve physical health and stamina. The cost to the summer student will be \$30 for three months of instruction. Classes will be held two days per week from 5:30 p.m. to 7 p.m. Contact Lynn York, 4039.

TICKET CORNER

Houston Astros Baseball - \$3.15 reserve and \$4 box; Sea Arama yr round, adults \$3, children \$2; Disney Magic Kingdom Cards, free; Lion Country Safari Cards, free; Six Flags Discount coming soon; Dean Goss Dinner Theater, \$16 couple; Windmill Dinner Theater, \$14 couple, only 30 tickets available, a zany comedy, starring Joseph Cotton in "The Reluctant Debutante"; Astroworld, all tickets \$4.50, ABC Interstate Theater, \$1.50.

Take stock in America.
Buy U.S. Savings Bonds.



SILVER SNOOPY - Four JSC employees recently received the Silver Snoopy award for "outstanding performance in ASTP Docking System Verification Tests in Moscow" as members of the Preflight Mate Test Team. Left to right are Eziaslav Harrin, William K. Creasy, and Robert D. White, all of Spacecraft Design Division; Kenneth Love of Quality Assurance Division, and Astronaut Office Chief John Young who made the presentations.

When The Boss Is Away...

Patt Huber of the Space Shuttle Program Office believes it is important to "work hard, be dependable and help others whether the boss is around or not." This philosophy was tested last year when her supervisor, Robert R. Frazer was detailed to Denver to work on the Viking Project and later to California where he currently is managing Shuttle Operations in Palmdale.

Since he has been gone, Patt has served as an intermediary between Aaron Cohen, Manager, Shuttle Orbiter Project Office, Andrew Hobokan, Manager, Manufacturing and Test Office, and the engineers assigned to the Test Office. Her efforts recently netted her the Outstanding Secretary Award for May.

Cohen says Patt "has a strong interest in her job and the people with whom she works and has demonstrated that she can handle assignments not typically given to secretaries." He added that she exercises sound judgment and is enthusiastic about assuming additional responsibilities to enhance the efficiency of the office.

One of her assignments is preparing the Test Office's weekly activity report. This entails contacting key engineers and assessing the status of their projects, checking previous

reports for inconsistencies, discussing any discrepancies with engineers or appropriate contactors and obtaining additional information. She organizes and types this report for inclusion in the Orbiter Activity Report.

Patt also possesses "topnotch" editorial skills which have improved the quality of Test Office correspondence so significantly that Hobokan has authorized Patt to submit items for his approval in final form rather than draft form.

"Patt has a sunny personality and is charming and tactful," Hobokan remarked, "She also has a



Patt Huber

special talent for easing difficult office situations and maintaining a pleasant office environment."

Throughout NASA (Continued from page 1)

program is to establish noise characteristics for this class of aircraft and to determine effectiveness of alternate landing approach procedures in reducing community noise levels.

EWEC

Insect communications and animal eyes have provided a fundamental design clue for a NASA effort to investigate the properties of a proposed new type of solar energy converter for space and Earth-bound use. A basic research

grant intended to develop the theory of the concept, called Electromagnetic Wave Energy Conversion (EWEC) was awarded recently to the University of Florida, Gainesville, by the Goddard Space Flight Center.

RESEARCH

A NASA-sponsored research program at the Massachusetts Institute of Technology could some day lead to economical production of hydrogen fuel directly from sunlight. The program has already shown that ultraviolet light can convert water into a fuel in the form of hydrogen. However, only 1 percent of the light energy currently is converted into chemical energy. The MIT researchers plan to experiment with different photo-assistance agents and different reaction temperatures in an attempt to increase the efficiency of the reaction and to make it work with visible light.

An added incentive to Americans who find Savings Bonds a convenient and attractive way to save is the new higher interest rate.

LANDSAT-2

Day-to-day operation of LANDSAT-2, the nation's newest Earth resources satellite, is being carried out by a unique, 30-kilogram (14 pound) computer "brain" with a 4,096-word memory. It is the most advanced device of its type ever flown on an unmanned NASA satellite.

Correction

In the May 25 issue of the Roundup, one of the steps in "Safety Tips" was inadvertently dropped. The instructions for using jumper cables should read:

— Connect one end of a cable to the positive pole of the discharged battery.

— Then connect the other end to the positive pole of the booster battery.

— Connect the second cable to the negative pole of the booster battery and the other end to the engine block of the vehicle with the discharged battery as far away from the battery as possible.

— When removing the cables do it in reverse order as stated above. Remember: the last connecting step and the first disconnecting step is what causes the spark and this must be accomplished as far from the battery as possible.

Tour of Duty (Continued from page 1)

with the Medical Branch of the RAF. He will continue to research physiological problems of high altitude flight, and says the knowledge he gained here on conducting experiments remote from the subject will be very valuable since his work in Farnborough will involve aircraft experiments comparable to the Skylab situation. He says he has also learned a great deal about handling large quantities of data.

"I am also excited about the possibilities of the future of biostereometrics which I had never heard of until I arrived here," he said.

Biostereometrics is a rapidly emerging science which measures the human body in three dimensions. Dr. Whittle participated in an experiment in which 3-D stereoscopic photographs of the Skylab astronauts were taken before and after flights. He was able to detect

subtle changes in the shape of the body following spaceflight which have provided much insight into the effect of weightlessness on the quantity and distribution of fat, muscle and fluid in the body.

"I think Biostereometrics will be a powerful tool of medical research in the future and I hope to start doing some work in that field," he remarked.

Whittle says in many ways, he and his family regretted leaving the U.S. "We've met so many nice, friendly people here. We had no problem adjusting. Although technically America is a foreign country to me, I really in no way feel like a foreigner," he said.

"I feel grateful to the RAF for sending me here and also to NASA for permitting me to work with such a highly esteemed program. It was really a chance in a lifetime that I never expected to get," he added.

REACTers To Have Names Inscribed

Participants in REACT (Reduce Every Agency Cost Today) will soon have their names inscribed on a large graphic scroll which will be on display at JSC. Miniatures of the scroll will be distributed later.

The REACT project is a short-term, high-emphasis program designed to involve every Center employee in Cost Reduction. Employees have been encouraged by the Center Director to set modest goals — about ten percent of his or her basic salary — and to take the necessary action, seeking assistance where necessary to implement ideas for savings.

Merve Hughes, Cost Reduction Officer says a major step in the program is to report the savings. "This communicates to both management and the workforce the teamwork that is so important in developing cost consciousness, efficiency in operations, and improvements in management and administration," he said.

Hughes said that REACT ideas will be referred to the formal Cost Reduction and Incentive Awards program when appropriate. "Everyone is urged to send in a REACT card and be among those listed on the Honor Roll for cost savings," he added.



GROUP ACHIEVEMENT AWARD — Dr. Kraft recently presented a Group Achievement Award to the Skylab Simulation Training and Mission Support Team. Standing l-r are Miguel A. Hernandez, Jr., David W. Scruggs, Stanley Faber, Maury L. Minette, Danny M. Franhein, Dr. Kraft, C. H. "Pete" Woodling, James O. Scales, Robert W. Force, Robert P. Jones; seated l-r are Texas M. Ward, Wayne K. Williams, Roy A. Powell, Lonnie D. Cundieff and Roger A. Burke.



BRIEFS NEWSMAN — Fred W. Haise briefs a Long Island radio newsman following a press conference held at Grumman Aerospace Corp. in Bethpage, N.Y. last week. The conference was on Shuttle operations.

Orbiter Wings (Continued from page 1)

west through Long Island Sound and the East River, to the Sea-Land Terminal in Port Elizabeth, New Jersey, where the wing assemblies and transporter will be transferred to an ocean-going container ship. The ship will travel, for about 13 days by way of the Panama Canal, to Long Beach, California. Upon arrival at Long Beach, the two transporters, with the wing panels still secured, will proceed overland, north through Los Angeles to Palmdale, California, a distance of about 100 miles which will take two days to cover.

Grumman Aerospace Corporation was awarded a contract in excess of \$40 million to design, manufacture and test the wings for

the Space Shuttle Orbiter, in March 1973, by Rockwell International.

The Orbiter wing, made in two panels, has a "double Delta" design. Aluminum is the primary material, and truss-type ribs and corrugated-web spars were used in the construction to provide a low cost, lightweight, high reliability design.

The Space Shuttle Orbiter, the first reusable space vehicle, is a space airplane which can fly in the atmosphere like conventional aircraft and in space like a space vehicle. It has the capability of carrying a variety of payloads into orbit as well as retrieving them for return to earth.

JSC is responsible for management of the Space Shuttle Program.

ROUNDUP

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